

DPM 3430

MATERIAL SAFETY DATA SHEET

"Vapor Barrier"

PRODUCT NAME: HI BUILD FLEX EPOXY CLEAR
PRODUCT CODE: 473-13

HMIS CODES: H F R P
2* 3 0 G

REC'D DEC 6 8 1987

===== SECTION I - MANUFACTURER IDENTIFICATION =====

MANUFACTURER'S NAME: SIKKENS AEROSPACE
ADDRESS: 20846 SOUTH NORMANDIE AVENUE, TORRANCE, CA 90502
EMERGENCY PHONE: 213-320-6800 INFORMATION PHONE: 213-320-6800
DATE PREPARED : 07-21-87 NAME OF PREPARER : BRENT BERGMAN
REASON REVISED : ORIGINAL

===== SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION =====

| HAZARDOUS COMPONENTS | CAS NUMBER | OCCUPATIONAL EXPOSURE LIMITS | | | VAPOR PRESSURE | | WEIGHT PERCENT |
|----------------------|------------|------------------------------|-----------|------------|----------------|------|----------------|
| | | ACIH TLV | OSHA PELV | NIOSH PELV | mm Hg @ | TEMP | |
| n-Butyl alcohol | 71-63-3 | 100 ppm | 50 ppm | | 4.3 | 68F | (5.0% |
| Xylene | 1330-20-7 | 100 ppm | 100 ppm | | 21.0 | 100F | (5.0% |
| Methyl ethyl ketone | 78-93-3 | 200 ppm | 200 ppm | | 75.0 | 68F | 5 |
| n-Butyl Acetate | 123-86-4 | 150 ppm | 150 ppm | | 8.0 | 68F | 5 |

===== SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS =====

BOILING RANGE: 175 to 281 Deg F SPECIFIC GRAVITY (H2O=1): 1.0
VAPOR DENSITY: HEAVIER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER
V.O.C.: 1.57 LB/GL (188 GR/LT)
SOLUBILITY IN WATER: INSOLUBLE
APPEARANCE AND ODOR: Clear liquid Fruity odor

===== SECTION IV - FIRE AND EXPLOSION HAZARD DATA =====

FLASH POINT: 23 Deg F METHOD USED: T.O.C.
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: 1.0% UPPER: 11.5%

EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL

SPECIAL FIREFIGHTING PROCEDURES

Full emergency equipment with self contained breathing apparatus should be worn. During a fire, irritating and highly toxic gases (see reactivity data) and smoke may be present from decomposition/combustion products.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Isolate from heat, electrical equipment, sparks and open flame. Closed container may explode when exposed to extreme heat. Solvent vapors may be heavier than air, under conditions of stagnant air, vapors may build up and travel along the ground to an ignition source which may result in a flash back to the source of the vapors.

===== SECTION V - REACTIVITY DATA =====

STABILITY: STABLE
CONDITIONS TO AVOID
Storage at temperatures above maximum.

INCOMPATIBILITY (MATERIALS TO AVOID)
Contamination with strong acids or bases.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS
Fumes produced when heated to decomposition may include: carbon monoxide, carbon dioxide.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

===== SECTION VI - HEALTH HAZARD DATA =====

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Repeated or prolonged exposure may cause irritation to respiratory tract. Heating may generate vapors that could cause headaches, nausea, dizziness and respiratory irritation if inhaled.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Contains materials that may cause moderate skin injury (reddening and swelling) Can cause allergic skin reaction in certain individuals May cause severe eye injury -- damage reversible.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
No specific information available. Contains materials that may be slightly toxic.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
No specific information available. Contains materials that may be slightly toxic

HEALTH HAZARDS (ACUTE AND CHRONIC)
No specific information available. Contains solvents which are reported to be associated with central nervous system damage after repeated and prolonged exposure. Contains solvents which are reported to cause liver and kidney damage on repeated overexposure.

CARCINOGENICITY: NTP? NO IARC MONOGRAPHS? NO OSHA REGULATED? NO

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
Chronic lung disease and dermatologic conditions.

EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Flush with clean, lukewarm water (low pressure) for at least 15 minutes., occasionally lifting eye lids. Obtain medical attention.

SKIN CONTACT: Remove contaminated clothing. Wash affected areas thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse.

INHALATION: Move to an area free from risk of further exposure. Administer oxygen or artificial respiration as needed. Obtain medical attention immediately.

INGESTION: Induce vomiting and obtain medical attention immediately.

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Evacuate all non-essential personnel. Remove all sources of ignition. Ventilate the area. Dike or impound spilled material and control further spillage if feasible. Cover spill with sawdust, vermiculite, Fuller's earth or other absorbant.

WASTE DISPOSAL METHOD

Waste material should be incinerated or disposed of in accordance with Federal, State and local environment control regulations. Empty containers must be handled with care due to product residue. Decontaminate containers prior to disposal. DO NOT HEAT OR CUT EMPTY CONTAINER WITH ELECTRIC OR GAS TORCH.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid contamination of skin. Do not apply to hot surfaces or use in areas where exposed to electric sparks. Keep away from fire and open flame. Ground containers when transferring from one to another.

OTHER PRECAUTIONS

===== SECTION VIII - CONTROL MEASURES =====

RESPIRATORY PROTECTION

Wear a properly fitted NIOSH/MSHA approved respirator at all times during exposure to vapors/mists. Where ventilation is inadequate, use full-face air supplied respirator mask.

VENTILATION

Explosion proof mechanical exhaust as required to maintain vapor concentration below lower flammable limit (see Section IV). Not recommended as sole means to control workplace exposure.

PROTECTIVE GLOVES

Impervious (Neoprene) gloves were contact in handling or usage may occur

EYE PROTECTION

Chemical splash goggles.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Where contact can occur, a safety shower and eye wash facility should be available.

WORK/HYGIENIC PRACTICES

After contact with material, change clothing and thoroughly wash hands before eating, drinking or smoking.

===== SECTION IX - DISCLAIMER =====

DISCLAIMER

The information contained herein is based on the data available to us and is believed to be correct. However, Sikkens Aerospace makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Sikkens Aerospace assumes no responsibility for injury from the use of the product described herein.

DPM 3430

MATERIAL SAFETY DATA SHEET

"Vapor Barrier"

REC'D DEC 03 1987

PRODUCT NAME: EPOXY CATALYST
PRODUCT CODE: C-317HMIS CODES: H F R P
2* 3 0 G

===== SECTION I - MANUFACTURER IDENTIFICATION =====

MANUFACTURER'S NAME: SIKKENS AEROSPACE
ADDRESS: 20846 SOUTH NORMANDIE AVENUE, TORRANCE, CA 90502
EMERGENCY PHONE: 213-320-6800 INFORMATION PHONE: 213-320-6800
DATE PREPARED : 07-22-87 NAME OF PREPARER : BRENT BERGMAN
REASON REVISED : ORIGINAL

===== SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION =====

| HAZARDOUS COMPONENTS | CAS NUMBER | OCCUPATIONAL EXPOSURE LIMITS | | | VAPOR PRESSURE mm Hg @ TEMP | WEIGHT PERCENT |
|------------------------|------------|------------------------------|------------|------------|--------------------------------|-------------------|
| | | ACGIH TLV | OSHA PELV | NIOSH PELV | | |
| 1-Piperazineethanamine | 140318 | NOT ESTAB. | NOT ESTAB. | | 0.1 68F | 100 |

===== SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS =====

BOILING POINT: 410 Deg F SPECIFIC GRAVITY (H2O=1): 1.0
VAPOR DENSITY: HEAVIER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER
V.O.C.: N/A
SOLUBILITY IN WATER: SLIGHT
APPEARANCE AND ODOR: CLEAR LIQUID IRRITATING ODOR

===== SECTION IV - FIRE AND EXPLOSION HAZARD DATA =====

FLASH POINT: 205 Deg F METHOD USED: PEN-MARTIN
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: 1.0% UPPER: N/A

EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL

SPECIAL FIREFIGHTING PROCEDURES

Full emergency equipment with self contained breathing apparatus should be worn. During a fire irritating and highly toxic gases (see reactivity data) and smoke are present from decomposition and combustion products.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Isolate from heat, electrical equipment, sparks and open flame. Closed containers may explode when exposed to extreme heat. Solvent vapors may be heavier than air. Under conditions of stagnant air, vapors may build up and travel along the ground to an ignition source which may result in a flash back to the source of the vapors.

===== SECTION V - REACTIVITY DATA =====

STABILITY: STABLE
CONDITIONS TO AVOID
Exposure to temperatures above 200F.

INCOMPATIBILITY (MATERIALS TO AVOID)
Avoid contamination with acids, oxidizing materials, aldehydes and organic halides

HAZARDOUS DECOMPOSITION OR BYPRODUCTS
Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide, nitrogen oxide and ammonia.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

===== SECTION VI - HEALTH HAZARD DATA =====

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Vapors are irritating and may cause nausea, vomiting and sensitization of the respiratory tract.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Vapors and liquid are irritating and may cause chemical burns. A strong sensitizer which may cause skin rash.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Prolonged or repeated contact may result in the absorption of harmful amounts of material.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Moderately toxic. Ingestion could cause irritation and possible corrosive action in the mouth, stomach and digestive tract. Vomiting may cause aspiration of the solvents resulting in chemical pneumonia.

HEALTH HAZARDS (ACUTE AND CHRONIC)
Prolonged or repeated contact with product can result in dry defatted and cracked skin causing increased susceptibility to infection. Over exposure to solvents has been associated with various neurological effects including permanent brain and nervous system damage.

CARCINOGENICITY: NTP? NO IARC MONOGRAPHS? NO OSHA REGULATED? NO

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
Asthma and any other respiratory disorders (bronchitis, emphysema, hyperactivity), skin allergies and eczema.

EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Flush with clean, lukewarm water (low pressure) for at least 15 minutes, occasionally lifting eyelids. Obtain medical attention.
SKIN CONTACT: Remove contaminated clothing. Wash affected areas thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse.
Inhalation: Move to an area free from risk of further exposure. Administer oxygen or artificial respiration as needed.

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Evacuate all non-essential personnel. Remove all sources of ignition. Ventilate the area. Dike or impound spilled material and control further spillage if feasible. Cover spill with sand, vermiculite, Fuller's earth or other absorbent.

WASTE DISPOSAL METHOD

Waste material should be incinerated or disposed of in accordance with Federal, State and local environment control regulations. Empty containers must be handled with care due to product residue. Decontaminate containers prior to disposal. DO NOT HEAT OR CUT EMPTY CONTAINERS WITH ELECTRIC OR GAS TORCH.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep away from heat, sparks, and open flame. Ground containers during storage and transfer operations. Store in tightly closed containers to prevent moisture contamination. Ideal storage temperature range is 50-81F (10-27C). Avoid contact with skin and eyes.

OTHER PRECAUTIONS

Employee education and training in the safe use of this product should be provided in accordance with OSHA Hazard Communication Standards.

===== SECTION VIII - CONTROL MEASURES =====

RESPIRATORY PROTECTION

Use a respirator that is recommended or approved for use in an organic solvent containing environment (air purifying or fresh air supplied). Observe OSHA regulations (29 CFR 1910.134) for respirator use. Where airborne concentration is unknown, the use of a positive pressure supplied air respirator is mandatory.

VENTILATION

Exhaust ventilation should be of explosion proof design sufficient to maintain the airborne concentration of solvents and amines below their respective TLV concentrations.

PROTECTIVE GLOVES

Chemical resistant (Neoprene) gloves

EYE PROTECTION

Safety glasses, splash goggles or face shield. Contact lenses should not be worn

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Cover as much of the exposed skin area as possible with appropriate clothing. If skin creams are used, keep the area protected only by the cream to a minimum.

WORK/HYGIENIC PRACTICES

Safety showers and eyewash stations should be available. Educate and train employees in the safe use of the product.

===== SECTION IX - DISCLAIMER =====

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